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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,970	03/30/2001	Motohide Tamura	Q63782	6901

7590 11/21/2003

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Washington, DC 20037-3202

EXAMINER

MENEFEE, JAMES A

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,970

Applicant(s)

TAMURA ET AL.

Examiner

James A. Menefee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

In response to the amendment filed 10/14/2003, claims 1 and 4 are amended and claims 9-13 cancelled. Claims 1-8 are pending.

Drawings

The drawings were received on 10/14/2003. These drawings are acceptable.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Prein et al. (US 4,651,324). Prein discloses the claimed invention as follows.

Regarding claims 1 and 2, Prein discloses a laser oscillator comprising a laser oscillation means for employing a discharge to excite a laser and to generate a laser beam, wherein the laser oscillation means comprises at least a discharge electrode including an electrode tube and an insulator, a box for storing the laser oscillation means, and an optical catalyst layer 13. The catalyst layer 13 inherently is located at a location where uv rays generated by the discharge are exposed. The catalyst layer 13 may either be located on the inner wall of said box (layer 13 at

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bottom of Fig. 1) or may be located on a plate 12 where the plate is located on an inner wall of the box.

Regarding claim 3, the catalyst layer 13 is disclosed as able to decompose nitrogen oxides.

Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Morton et al. (US 5,771,258). Morton discloses a laser oscillator comprising laser oscillation means for employing a discharge by a pair of discharge electrodes that face each other across an intervening discharge space to excite a laser gas and to generate a laser beam, a box for storing said laser oscillation means, and a recess portion arranged in said box for receiving uv rays generated by said laser oscillation means and for reflecting said uv rays back through the discharge space between the discharge electrodes. The recess is the portion including parts 108 and 130. This recessed portion will inherently act as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prein in view of Holcomb et al. (previously cited US 4,261,753). Prein discloses the limitations of the claims shown above, but there is not disclosed a graphitized layer formed on an inner wall of the box, or

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on a plate on the inner wall of the box. Holcomb teaches that a graphitized layer may be used to coat the inside of a laser system (see summary of invention, col. 2). It would have been obvious to one skilled in the art to use such a graphitized layer inside of a laser system because such a layer is stable when in contact with corrosive laser gases, as taught by Holcomb. While this may not necessarily be important to Prein's system, as the laser gas is CO₂, it would have been obvious to one skilled in the art that Prein's basic system, including plates and catalysts, may also be useful in other laser systems having more corrosive gases. In such a system, Holcomb's graphitized layer would be advantageous.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prein. Prein discloses the limitations of the claims above, but does not include a uv sensor in the box. It is well known in the art to include sensors in laser systems to sense the emitted light. It would have been obvious to one skilled in the art to include such a sensor so that the characteristics of the light may be monitored and so that one can take appropriate action in response to any changes in the characteristics, as is well known.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Menefee whose telephone number is (703) 605-4367.

The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



JM
November 14, 2003



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